TREE FROG LLC
CONSULTING ARBORIST

To:	Kranthi Bathula
Job Site:	N/A
Parcel:	3424069301
Subject:	Arborist Report
Date:	9/9/2022
From:	Andy Crossett, ISA Certified Arborist #PN-7375A, Qualified Tree Risk Assessor, WSNLA Certified Professional Horticulturist #2537

Assignment

On Monday, August 15th, 2022, Kranthi Bathula contacted me with a request for a tree inventory report and custom tree protection plan for his Issaquah property. On Tuesday, August 23rd, I walked the site with Mr. Bathula to inspect the trees and document my findings.

A summary, tree table, and site map can be found below under sections 1 - 5**.**

Where applicable, I have categorized risk based on the methodologies presented in the International Society of Arboriculture's Tree Risk Assessment (Best Management Practices).

My responsibilities were to provide the following:

A tree plan that includes a tree inventory, site plan, replanting information (if necessary), tree protection measures for on-site and off-site trees (where CRZ extends on-site), and recommendations that will meet the minimum city of **Issaquah** tree code requirements.

Site Description

This 54,450 square foot lot is located south-west of Front Street S. The property is undeveloped and heavily forested with a typical mix of native Puget sound lowland evergreen and deciduous trees. The north-east portion of the property is fairly level, but the south-west portion does abruptly slope down from north-east to south-west.

Subject Trees – Thirty-one (31) on-site trees and one (1) off-site tree.

1. Summary

This report is preliminary as I have not reviewed any design plans or construction details for the site. Tree locations are based on a provided site survey and observations during my site visit.

- Twenty-six (26) significant, but not landmark trees were located on-site. The trees are currently in good condition and viable for retention.
- Five (5) landmark trees were located on-site. The trees are currently in good condition and viable for retention.
- One (1) tree has been identified growing off-site, but with critical root zones that extend on-site.

Retained trees will require protection measures to ensure they are not significantly impacted by construction. Issaquah tree protection measures, fencing details, and ISA recommended tree protection guidelines can be found within this report.

2. Tree Retention Calculation

Lot Square Footage	DBH of all on-site significant trees	30% DBH retained	DBH proposed for removal	Retained DBH	% Retained
54,450	540 inches	162 inches	Unknown	Unknown	Unknown

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3. Tree Replacement

18.12.1390 Replacement trees.

A. Replacement Tree Requirement: Trees removed pursuant to the provisions of this chapter shall be replaced per the following criteria:

1. For tree removal associated with a commercial or multifamily revision to an approved landscape plan, replacement may be calculated based on meeting the landscape plan purpose and intent. This may include: adjustments to the timing of replacement up to six (6) months, or to the size of replacement trees up to one (1) inch, when justification can be provided that the changes meet or exceed the original landscape plan.

2. For All Other Tree Removal: One (1) replacement tree for every six (6) inches of caliper at dbh of trees removed if remaining tree density is below the minimum requirements in IMC 18.12.1370, Minimum tree density requirements.

3. All replacement trees shall be:

   a. A minimum of two (2) inch caliper for deciduous trees and seven (7) to eight (8) feet tall for conifers for multifamily and commercial lots;

   b. A minimum of five (5) gallon for existing single family lots.

4. Tree replacement must be completed the end of the calendar year the tree is removed.

5. Single Family Lots: Replacement for hazardous tree removal is not required.

4. Tree Inventory Table

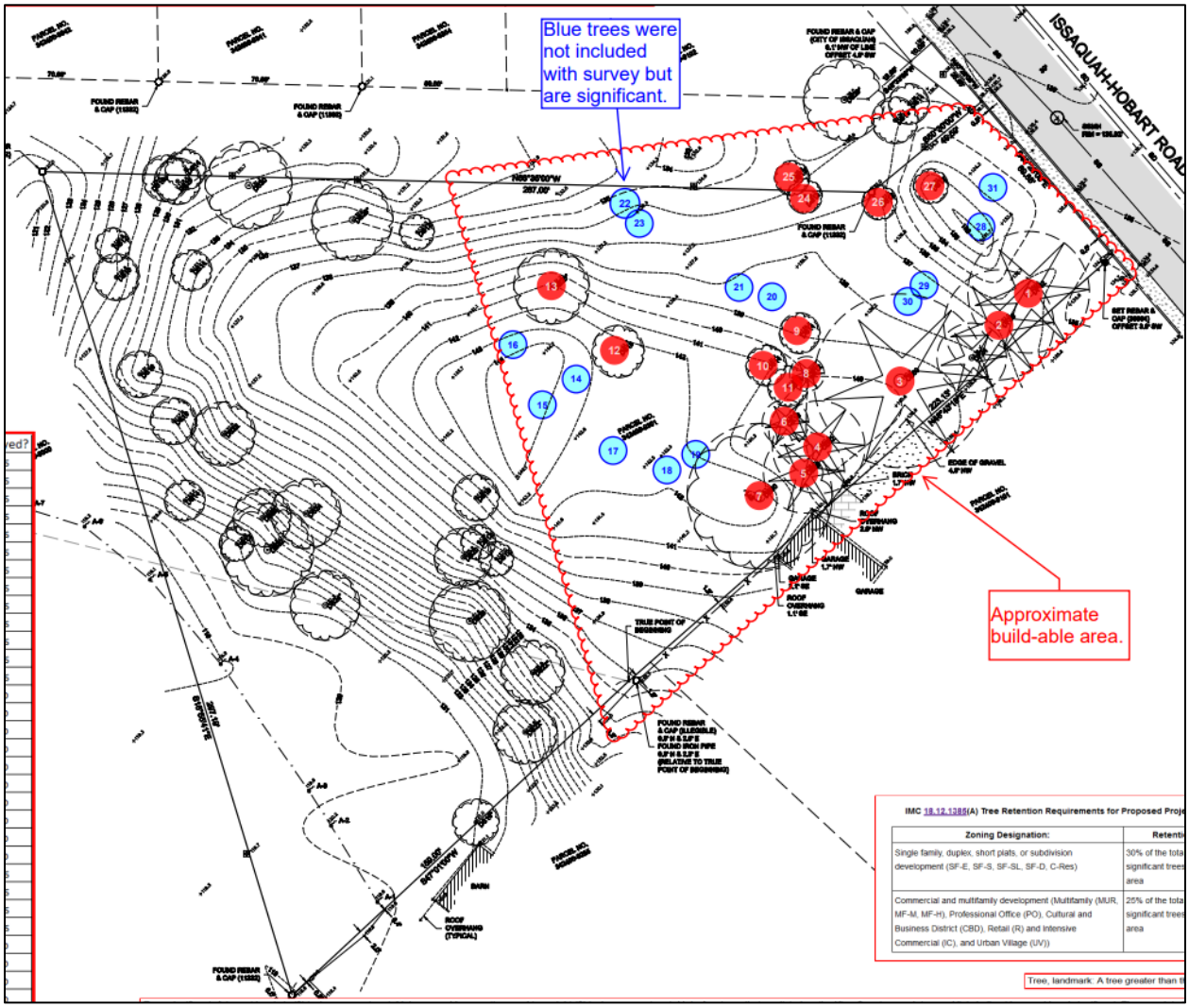
Tree ID	Parcel/Location	Species	DBH (inches)	Health Condition	Structural Condition	Combined Viability	Average Dripline (radius)	TPZ radius (min. allowable)	Landmark (Yes/No)	Proposed Action	Risk Rating	Comments
1	**3424069301**	Douglas fir *Pseudotsuga menziesii*	42	Good	Good	Viable	20′	20′	**Yes**	Unknown	**Low**	
2	**3424069301**	Douglas fir *Pseudotsuga menziesii*	38	Good	Good	Viable	20′	20′	**Yes**	Unknown	**Low**	
3	**3424069301**	Western Redcedar *Thuja plicata*	62	Good	Good	Viable	20′	20′	**Yes**	Unknown	**Low**	
4	**3424069301**	Western Redcedar *Thuja plicata*	32	Good	Good	Viable	15′	15′	**Yes**	Unknown	**Low**	
5	**3424069301**	Western Redcedar *Thuja plicata*	28	Good	Good	Viable	15′	15′	**No**	Unknown	**Low**	
6	**3424069301**	Western Redcedar *Thuja plicata*	16	Good	Good	Viable	15′	15′	**No**	Unknown	**Low**	
7	**3424069301**	Bigleaf Maple *Acer macrophyllum*	50	Good	Good	Viable	20′	20′	**Yes**	Unknown	**Low**	
8	**3424069301**	Western Redcedar *Thuja plicata*	12	Good	Good	Viable	10′	10′	**No**	Unknown	**Low**	
9	**3424069301**	Western Redcedar *Thuja plicata*	14	Good	Good	Viable	10′	10′	**No**	Unknown	**Low**	

Tree ID	Parcel/Location	Species	DBH (inches)	Health Condition	Structural Condition	Combined Viability	Average Dripline (radius)	TPZ radius (min. allowable)	Landmark (Yes/No)	Proposed Action	Risk Rating	Comments
10	**3424069301**	Red Alder *Alnus rubra*	14	Good	Good	Viable	10′	10′	**No**	Unknown	**Low**	
11	**3424069301**	Red Alder *Alnus rubra*	14	Good	Good	Viable	10′	10′	**No**	Unknown	**Low**	
12	**3424069301**	Bigleaf Maple *Acer macrophyllum*	16	Good	Good	Viable	10′	10′	**No**	Unknown	**Low**	
13	**3424069301**	Bigleaf Maple *Acer macrophyllum*	26	Good	Good	Viable	15′	15′	**No**	Unknown	**Low**	
14	**3424069301**	Black Hawthorn *Crataegus douglasii*	8	Good	Good	Viable	7.5′	7.5′	**No**	Unknown	**Low**	
15	**3424069301**	Red Alder *Alnus rubra*	10	Good	Good	Viable	7.5′	7.5′	**No**	Unknown	**Low**	
16	**3424069301**	Hazelnut *Corylus cornuta*	8	Good	Good	Viable	7.5′	7.5′	**No**	Unknown	**Low**	
17	**3424069301**	Black Hawthorn *Crataegus douglasii*	7	Good	Good	Viable	7.5′	7.5′	**No**	Unknown	**Low**	
18	**3424069301**	Black Hawthorn *Crataegus douglasii*	7	Good	Good	Viable	7.5′	7.5′	**No**	Unknown	**Low**	
19	**3424069301**	Red Alder *Alnus rubra*	7	Good	Good	Viable	7.5′	7.5′	**No**	Unknown	**Low**	

Tree ID	Parcel/Location	Species	DBH (inches)	Health Condition	Structural Condition	Combined Viability	Average Dripline (radius)	TPZ radius (min. allowable)	Landmark (Yes/No)	Proposed Action	Risk Rating	Comments
20	**3424069301**	Black Cottonwood *Populus trichocarpa*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
21	**3424069301**	Silver Birch *Betula pendula*	8	Good	Good	Viable	7.5’	7.5’	**No**	Unknown	**Low**	
22	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
23	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
24	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
25	**3424069300 (off-site)**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
26	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
27	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
28	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
29	**3424069301**	Bigleaf Maple *Acer macrophyllum*	6	Good	Good	Viable	7.5’	7.5’	**No**	Unknown	**Low**	

Tree ID	Parcel/Location	Species	DBH (inches)	Health Condition	Structural Condition	Combined Viability	Average Dripline (radius)	TPZ radius (min. allowable)	Landmark (Yes/No)	Proposed Action	Risk Rating	Comments
30	**3424069301**	Bitter Cherry *Prunus emarginata*	7	Good	Good	Viable	7.5’	7.5’	**No**	Unknown	**Low**	
31	**3424069301**	Bitter Cherry *Prunus emarginata*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	
32	**3424069301**	Silver Birch *Betula pendula*	12	Good	Good	Viable	10’	10’	**No**	Unknown	**Low**	

5. Site Map


Blue trees were not included with survey but are significant.
ISSAQUAH-HOBART ROAD
Approximate build-able area.
IMC 18.12.1385(A) Tree Retention Requirements for Proposed Proje
Zoning Designation:
Retenti
Single family, duplex, short plats, or subdivision development (SF-E, SF-S, SF-SL, SF-D, C-Res)
30% of the tota significant trees area
Commercial and multifamily development (Multifamily (MUR, MF-M, MF-H), Professional Office (PO), Cultural and Business District (CBD), Retail (R) and Intensive Commercial (IC), and Urban Village (UV))
25% of the tota significant trees area
Tree, landmark: A tree greater than t

6. Details of Risk Assessment

Level 2: Basic Assessment

A level 2 basic assessment is the standard assessment performed for tree risk. The assessment includes a detailed visual inspection of a tree and its surrounding site, and a synthesis of the information collected. The basic assessment involves walking completely around the tree – looking at the site, buttress roots, trunk, and branches. The tree is viewed from a distance, as well as close up, to consider crown shape and surroundings.

Methodology – When identifying potential hazard trees, I must consider a variety of factors that could contribute to failure. This can include the following: previous history of site failures, topography, site changes, prevailing wind direction and exposure, tree size and species, growth habit, overall vigor, the density and health of the foliage and crown, examination of root and root collar health, dead wood, hanging or broken branches, and evidence of disease-causing bacteria, fungi, or virus.

Tools Utilized: Binoculars, compass, hammer, diameter tape, clinometer

Timeline – This assessment covers a five-year period and is based on conditions present at the time of the assessment.

7. Definitions:

Diameter at Breast Height (DBH) – The diameter or thickness of a tree trunk measured at 4.5 feet above average grade. For trees with multiple trunks at 4.5 feet height, only trunks 3" DBH or greater shall be included. Where a tree splits into several trunks close to ground level, the DBH for the tree is the square root of the sum of the DBH for each individual stem squared (example with 3 trunks: DBH = square root [(stem1)2 + (stem2)2 + (stem3)2]). If a tree has been removed and only the stump remains that is below 4.5 feet tall, the size of the tree shall be the diameter of the top of the stump.

Significant Tree Issaquah –A tree at least six (6) inches or greater at d.b.h. or an alder or cottonwood tree eight (8) inches or greater at d.b.h. Any trees that are listed on the King County complete weed list shall not be considered significant. The complete King County weed list includes: Class A noxious weeds, Class B noxious weeds, Class C noxious weeds, nonregulated noxious weeds or weeds of concern lists as adopted by King County noxious weed list, in accordance with Chapter 17.10 RCW and Chapter 16-750 WAC.

Landmark Tree – Tree, landmark: A tree greater than thirty (30) inches d.b.h.

Dripline – The distance from the tree trunk that is equal to the furthest extent of the tree's crown. For trees with asymmetrical crowns, the dripline shall be measured in all four cardinal directions (North, South, East, West).

Tree Protection Zone (TPZ) – A defined area within and including an outer boundary, as determined by a Qualified Professional Arborist, in which certain activities are prohibited or restricted to prevent or minimize potential impacts from construction or development, applicable to individual trees or groups of tree trunks, roots and soil. TPZ is measured in feet from the face of the trunk and may be determined using Critical Root Zone, dripline, exploratory root excavations or other methodologies. The TPZ is variable depending on species, age and health of the tree, soil conditions and proposed construction. TPZ denotes the location of tree protection fencing.

Referenced Municipal Code:

City of Issaquah Trees
https://www.issaquahwa.gov/1071/Trees

Chapter 18.12 LANDSCAPING AND TREE RESERVATION
https://www.codepublishing.com/WA/Issaquah/html/Issaquah18/Issaquah1812.html#18.12.1385

8. Tree Protection Timeline and Site Recommendations

Prior to construction, the following measures should be taken to ensure that trees are not damaged.

1) Project managers should review the contents of this report, including the International Society of Arboriculture's recommended tree protection measures found below under section 9 of this report. Information contained herein should be relayed to workers and subcontractors.

2) To minimize soil compaction, 8 – 12 inches of medium fine mulch should be applied within the recommended tree protection zones of this report. It should be kept at a minimum of 12 inches from the protected tree's trunk.

3) Once the mulch has been applied, tree protection fencing should be installed per **18.12.141 Tree plan requirements.**

Additional site recommendations.

- Tree protection fencing and mulch should only be adjusted when access is required, such as, when scaffolding is utilized. Once the work has been completed, the fencing should return to its original placement.

- The following should be avoided within TPZ's: Stockpile construction materials or demolition debris, park vehicles or equipment, pile soil and/or mulch, contaminate soil from washing out equipment (especially concrete) and vehicle maintenance, and wound or break tree trunks or branches through contact with vehicles and heavy equipment.

- Post appropriate signage to help convey the importance of the TPZ to workers.

- Make all necessary cuts to tree roots cleanly with sharp tools; never tear with a backhoe. A clean cut encourages good wound closure and confines the spread of decay.

- All pruning should be conducted by an International Society of Arboriculture (ISA) certified arborist and following current ANSI A300 specifications.

- The project arborist shall supervise that the tree protection plan is being implemented.

9. ISA Recommended Tree Protection Information

The Pacific Northwest Chapter of the ISA Recommends the following for protecting trees from damage during construction.

https://pnwisa.org/tree-care/damage/protecting-trees-from-damage/

Critical Root Zone Protection

A critical step in retaining healthy trees is the protection of tree roots from disturbance. Each tree has a critical root zone (CRZ) that varies by species and site conditions. The International Society of Arboriculture defines CRZ as an area equal to a 1-foot radius from the base of the tree's trunk for each 1 inch of the tree's diameter at 4.5 feet above grade (referred to as diameter at breast height).

Another common rule of thumb is to use a tree's drip line to estimate the CRZ (see figure). Evaluate both of these and choose whichever provides the larger CRZ.

Under certain circumstances, disturbing or cutting roots in a CRZ may be unavoidable. In such cases, the work should be done only under the on-site supervision of an ISA Certified Arborist.

Cutting or disturbing a large percentage of a tree's roots increases the likelihood of the tree's failure or death. Never cut tree roots that are more than four inches wide; roots that large are usually structural. Cutting them can destroy the stability of the tree, causing it to fall over!

If you must cut tree roots, do so cleanly with sharp tools. Never tear with a backhoe or other dull instrument. A clean cut encourages good wound closure and confines the spread of decay. If damage is severe, consider removing the tree because its stability may have been compromised.

Activities to Avoid in the Critical Root Zone

The CRZ that should be protected from negative interactions. Avoid the following activities:

- Stockpiling construction materials or demolition debris
- Parking vehicles or equipment
- Piling soil and/or mulch
- Trenching for utilities installation or repair, or for irrigation system installation
- Changing soil grade by cutting or filling
- Damaging roots by grading, tearing, or grubbing
- Compacting soil with equipment, vehicles, material storage, and/or foot traffic

- Contaminating soil from washing out equipment (especially concrete) and vehicle maintenance
- Installing impervious parking lots, driveways, and walkways
- Attaching anything to trees using nails, screws, or spikes
- Wounding or breaking tree trunks or branches through contact with vehicles and heavy equipment
- Wounding trunks with string weed trimmers and lawn mowers
- Causing injury by fire or excessive heat

During Construction

Monitor compliance with tree protection requirements and the impacts of construction activities on tree health regularly during construction. If there are incursions into the root zone, ensure roots have been severed cleanly, enforce penalties, and reestablish the protection zone. Confer with your contractors to make sure that construction offices, vehicular parking, worker break sites, concrete washout areas or other pollutants, and material storage will remain outside of protected areas. Diligence in maintaining barriers and in enforcing your protection plan will pay great dividends at the end of the project when the tree is still healthy.

Following the guidelines laid out above will serve in most situations, but occasionally construction plans will require impingement on the CRZ.

Trenching

Trenching is a standard way to install utilities. **It is best to entirely avoid trenching through the CRZ** (see figure); such practice could severely destabilize a tree, as well as adversely affect its health through loss of roots. Workers performing such operations should understand that 85% of the mass of a tree's root system is located within the CRZ and that most of a tree's roots are within the top 18 inches of soil. Alter routes of underground infrastructure or use alternate methods such as pipe boring. Tunneling at least 18 inches beneath the root zone will prevent loss of critical root mass if underground utilities must unavoidably be placed within the CRZ.

A decision must be made as to where best to locate utility trenches. Planners and designers must be made aware that trenches may not cross a CRZ and design alternate alignments accordingly; such realignments are not the responsibility of the construction crew.

Best practices for trenching include the following:

- Protect the trunks of high-value trees from scraping and gouging to a height of at least eight feet.
- Keep equipment and excavated backfill on the side furthest from the tree, not against the trunk.

- Place excavated backfill on a plastic or canvas tarp outside the CRZ.
- Prune away jagged roots back to the trench wall closest to the tree. Use a handheld pruner or pruning saw to make sharp, clean cuts.
- Replace the backfill on the same day if at all possible. Cover exposed roots with wet burlap to prevent them from drying out; in hot dry conditions, small roots may be injured in as little as 30 minutes.
- Do not allow chemicals, trash, or other foreign debris to become mixed with the backfill.
- If earthwork specifications allow it, firm the backfill to the same compaction as the surrounding soil and no more.
- Water the backfill to prevent excessive root drying.

Grade or Ground Level Changes

Grade changes should be avoided in order to prevent serious damage or death to a tree. Fill that is added over existing soils can smother and kill roots, or invite disease if piled around the trunk. Even temporary fills such as stockpiling mulch or soil in the CRZ of a tree for as little as several days during the construction process can have severe, long-term negative effects, though symptoms may not appear for several years.

The extent of injury from adding soil around a tree varies with the kind, age, and condition of the tree; the depth and type of fill; drainage; and several other factors. Maple, oak, and evergreens are most susceptible, while elm, ash, willow, sycamore, and locust are least affected.

Little can be done to save trees that have been suffering from soil added over an extended period of time. It is prudent to consider possible damage that may occur to a tree and take alternative action before the fill is made; prevention is less expensive and more effective than attempting to correct the situation after damage has been done.

Best practices for fill operations include the following:

- Never place any fill or organic materials directly against the tree.
- Never compact the soil within the CRZ.
- If using no more than two to four inches of fill around existing trees, significant damage may be avoided if the fill has a coarser texture than the existing soil.

Less damage to a tree's roots is likely with a lowered grade than when it is raised, unless exposing or removing a great deal of the root mass. A general rule-of-thumb used by landscape architects is to remove no more than six inches of soil from the existing grade in the CRZ; however, this is dependent on the soils in which the tree is growing. A tree's roots may all exist in the top foot of a shallow soil; removing the top six inches would have tremendous negative impact in that case.

Best practices for removing soil include the following:

- Consider removal and replacement if the tree is young, in poor condition, an undesirable species, or very susceptible to insects and disease.
- Plan grade changes well in advance of construction using the appropriate method to prevent injury to desirable trees.
- Use retaining walls or terraces to avoid excessive soil loss in the area of greatest root growth.
- Spread mulch over the exposed root area when possible, to help prevent soil erosion, reduce moisture loss, and keep soil temperatures lower.
- Provide supplementary water when rainfall is less than one inch per week.
- Prune roots to prepare the tree for root loss due to grade lowering. Root pruning is best left to an ISA Certified Arborist, who can take into account the variables necessary to reduce the stress of the pruning to the tree.

10. Certificate of Performance

I, Andy Crossett, certify that:

- I have personally inspected the trees and the property referred to in this report and have stated my findings accurately.
- I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinion, and conclusions stated herein are my own and are based on current industry standards, scientific procedures, and facts.
- My analysis, opinion, and conclusions were developed, and this report has been prepared according to commonly accepted arboriculture practices.
- No one provided significant professional assistance to me, except as indicated within the report.
- My compensation is not contingent upon the reporting of predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of the International Society of Arboriculture (ISA) and an ISA Certified Arborist (#PN-7375A) and Tree Risk Assessment Qualified. I also am a Certified Professional Horticulturist through the Washington State Nursery and Landscape Association.

If you have any questions about this report, please contact me at 206-310-8254 or andycrossett@hotmail.com.

Andy Crossett

References:

Dirr, Michael A. *Manual of Woody Landscape Plants Their Identification, Ornamental Characteristics, Culture, Propagation, and Use.* Stripes Publishing L.L.C., 2009

Smiley, E. Thomas, Nelda Matheny, and Sharon Lilly. *Tree Risk Assessment (Best Management Practices, Second Edition)*. Champaign: International Society of Arboriculture, 2017.

Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly. Tree Risk Assessment Manual. Champaign, Illinois: International Society of Arboriculture, 2013.

Shigo, Alex L. *A New Tree Biology: Facts, Photos, and Philosophies on Trees and Their Problems and Proper Care*. Shigo and Trees, Associates, 1986.

11. Credentials & Experience

History

I first began working in the horticulture industry in 2002 at a landscaping company located locally in Bellevue, WA. After working in the field for a few years, as a laborer and a supervisor, I decided to pursue a formal education at Lake Washington Institute of Technology. I graduated in 2011 with a degree in Environmental Horticulture and immediately took the ISA and CPH exams to be become a Certified Arborist and a Certified Horticulturist, respectively. I moved onto to work as a member of the Street Tree and Irrigation Department for the City of Bellevue. Tree Frog LLC started in 2013, when I began consulting part time in addition to working as head gardener at a seven-acre estate in Medina, WA. Tree Frog LLC has grown, and I have been consulting full time since 2017.

In my spare time, I enjoy spending time with my family and the animals on my small hobby farm.

Education

Lake Washington Institute of Technology – Associates Degree, Environmental Horticulture

My education from Lake Washington Institute of Technology's horticulture program focused on the following areas of study: botany, plant propagation, greenhouse management, soils, pruning, pest and disease management, landscape design, turf grass management, and plant identification.

Credentials

Certified Professional Horticulturist through the Washington State Nursery & Landscape Association #2537

In 1978, WSNLA created a two-pronged professional certification program that was known as the Washington Certified Nurseryman or Washington Certified Landscaper. In 2005, WSNLA revamped and upgraded the certification program and renamed the designation as Certified Horticultural Professional. With nearly 400 Certified Professional Horticulturists, the CPH program is the largest community of state certifications serving professional horticulturists in Washington State.

To earn a WSNLA Certified Professional Horticulturist credential, you must pass a written exam that tests your skills and knowledge as a horticultural professional based on study materials and practical applications.
You must provide the equivalent of one year of work experience (2000 hours) with a licensed nursery, landscape contractor or WSNLA-approved business or institution.

Certified Arborist and Qualified Tree Risk Assessor, through the International Society of Arboriculture #PN-7375A.

To earn an ISA Certified Arborist® credential, you must be trained and knowledgeable in all aspects of arboriculture. ISA Certified Arborist® have met all requirements to be eligible for the exam, which includes three or more years of full-time, eligible, practical work experience in arboriculture and/or a degree in the field of arboriculture, horticulture, landscape architecture, or forestry from a regionally accredited educational institute. This certification covers a large number of topics giving the candidates flexibility in the arboricultural profession. A code of ethics for ISA Certified Arborists® strengthens the credibility and reliability of the work force. This certification is accredited by the American National Standards Institute, meeting, and exceeding ISO 17024.

Continued Education

Trees and the Law **|** Report Writing for Arborists **|** Defensible Tree Appraisal **|** Developing Field Assessment Skills for Common PNW Tree Diseases **|** Climbing Safety Case Studies **|** WSNLA PROseries seminar Pest & Disease **|** Tree Disorder Diagnosis Online Workshop & Live Discussion **|** Why Trees Fail Online Workshop & Live Discussion **|** Arbor Chat: A Deep Dive Into the ISA Certified Arborist® Code of Ethics **|** Diagnosis & Disorder: General Diagnosis **|** Tree Biology: Anatomy **|** Arbor Chat - Coronet cuts: The simulation of natural fractures **|** Tree root physiology and urban soils – can't we just all get along? **|** Arboricultural Zombies - Myths That Will Not Die **|** Forged in Fire: Arborist Options Before & After the Fire **|** Forest Health Watch – working together to monitor, study and understand tree health issues in Pacific Northwest **|** Tree insect pest diagnosis and management **|** Homeowner knowledge and perceptions of tree care and preservation on residential properties **|** Managing the Trees Where People Live for Resiliency **|** Regenerative Pruning: Research on Overextended Trees, Practice on Hollow Trees **|** Machine Generated Report Writing **|** Tools We Use **|** Putting the MD Back in Tree Doctor **|** Building a Resilient Arboriculture and Urban Forestry Program in Rural Municipalities **|** Ethical Tree Care in the Urban Interface **|** What's pesky in the PNW… And what could be on its way? **|** Coping with heat: Community urban forest perspectives and experiences in Vancouver, Canada **|** Advancing Urban Forestry in the Pacific Northwest **|** Root Pruning **|** The Influence of Abiotic Factors on Street Tree Condition and Mortality in a Commercial-Retail Streetscape **|** Arborists and Wildlife: Retaining Trees for Wildlife Habitat **|** Tree Inventories **|** Biology and Identification of Fungi **|** Wood Decay Fungi Identification and Management **|** Container Type Affects Root Development **|** Tree Lightning Protection Systems **|** Advanced Tree Identification **|** Wood Chips and Compost Improve Soil Quality and Increase Growth of Acer rubrum and Betula nigra in Compacted Urban Soil **|** A Review of Spatial Variation of Allergenic Tree Pollen **|** The Cost of Not Maintaining the Urban Forest **|** Impacts of Wire Basket Retention and Removal **|** Effects of Root Severance by Excavation on Two Urban Tree Species

Volunteering

Dog Mountain Farm, CSA

Dog Mountain Farm serves the Snoqualmie Valley community and Seattle area by providing Certified Naturally Grown farm-fresh vegetables, fruit, eggs, herbs, and flowers. They also offer educational tours for schools and groups.

12. Assumptions & Limiting Conditions

a) A field examination of the site was made on **8/24/2022**. My observations and conclusions are as of that date.

b) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/arborist can neither guarantee nor be responsible for accuracy of information provided by others.

c) Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the conditions of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree may not arise in the future.

d) All trees possess the risk of failure. Trees can fail at any time, with or without obvious defects, and with or without applied stress. A complete evaluation of the potential for this (a) tree to fail requires excavation and examination of the base of the subject tree. Permission of the current property owner must be obtained before this work can be undertaken and the hazard evaluation completed.

e) Other trees with similar defects are standing in the neighborhood and have been so for some time. Trees are living biological organisms, and I cannot predict nor guarantee their stability or failure.

f) Sketches, drawings, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural report of surveys unless expressed otherwise. The reproduction of any information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by Tree Frog LLC as to the sufficiency or accuracy of said information.

g) The consultant/appraiser shall not be required to give testimony or attend court because of this report unless subsequent contractual arrangements are made.

h) Loss or alteration of any part of this report invalidates the entire report.

i) Unless required by law otherwise, possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.